

In the Claims

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3 **1. (Currently Amended)** An apparatus for connecting a tone generator
4 to a plurality of conductors in a communication line, said apparatus comprising:

5 an interconnect structure comprising:

6 a first plurality of leads comprising an electrically conductive
7 portion having a first end and a second end, wherein the first plurality of leads are
8 commonly electrically attached at the first end and wherein the first end is
9 configured to electrically attach to a tone generator; and

10 a plurality of first electrical connection devices electrically attached
11 to a plurality of corresponding leads of the first plurality of leads at the second
12 end, a plurality of first electrical connection devices configured to engage a
13 plurality of electrical conductors of a communication line to provide an electrical
14 connection between the tone generator and a plurality of electrical conductors of
15 the communication line, wherein the tone generator simultaneously distributes a
16 tone signal across the plurality of leads and the plurality of electrical conductors of
17 the communication line.

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19 **2. (Original)** The apparatus of claim 1, wherein the first end of the first
20 plurality of leads further comprises a first pigtail conductor electrically attached to
21 the first end of the plurality of leads.

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23 **3. (Original)** The apparatus of claim 2, wherein the first pigtail conductor
24 is configured to electrically attach to the tone generator.
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1 **4. (Original)** The apparatus of claim 3, wherein the first pigtail conductor
2 further comprises a second electrical connection device for releasably attaching
3 the second pigtail to the tone generator.

4 **5. (Original)** The apparatus of claim 1, wherein a plurality of first
5 electrical connection devices are spring loaded clips for releasably attaching a
6 plurality of leads of the first plurality of leads to a plurality of electrical conductors
7 of the communication line.

8 **6. (Currently Amended)** ~~The apparatus of claim 1, further comprising:~~
9 An apparatus for connecting a tone generator to a plurality of conductors in
10 a communication line, said apparatus comprising:
11 an interconnect structure comprising:

12 a first plurality of leads comprising an electrically conductive
13 portion having a first end and a second end, wherein the first plurality of leads are
14 commonly electrically attached at the first end and wherein the first end is
15 configured to electrically attach to a tone generator; and

16 a plurality of first electrical connection devices electrically attached
17 to a plurality of corresponding leads of the first plurality of leads at the second
18 end, a plurality of first electrical connection devices configured to engage a
19 plurality of electrical conductors of a communication line to provide an electrical
20 connection between the tone generator and a plurality of electrical conductors of
21 the communication line;
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1 a second plurality of leads comprising an electrically conductive
2 portion having a first end and a second end, wherein the second plurality of leads
3 are commonly electrically attached at the first end and wherein the first end is
4 configured to electrically attach to a tone generator; and

5 a plurality of third electrical connection devices electrically attached
6 to a plurality of corresponding leads of the second plurality of leads at the second
7 end, a plurality of third electrical connection devices configured to engage a
8 plurality of electrical conductors of a communication line to provide an electrical
9 connection between the tone generator and a plurality of electrical conductors of
10 the communication line.

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12 **7. (Previously Presented)** The apparatus of claim 6, wherein the first end
13 of the second plurality of leads further comprises a second pigtail conductor
14 electrically attached to the first end of the first plurality of leads.

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16 **8. (Previously Presented)** The apparatus of claim 6, wherein the second
17 pigtail conductor is configured to electrically attach to the tone generator.

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19 **9. (Previously Presented)** The apparatus of claim 8, wherein the second
20 pigtail conductor further comprises a fourth electrical connection device for
21 releasably attaching the second pigtail to the tone generator.

1 **10. (Original)** The apparatus of claim 1, wherein a plurality of fourth
2 electrical connection devices are spring loaded clips for releasably attaching a
3 plurality of leads of the second plurality of leads to a plurality of electrical
4 conductors of the communication line.

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6 **11. (Original)** A system for testing a communication line including a
7 plurality of electrical conductors, the system comprising:

8 a tone generator having a signal output terminal and a common return
9 terminal; and

10 an interconnect structure electrically coupled to the tone generator, the
11 interconnect structure comprising:

12 a first plurality of leads comprising a electrically conductive portion having
13 a first end and a second end, wherein the first plurality of leads are commonly
14 electrically attached at the first end and wherein the first end is configured to
15 electrically attach to the signal output terminal of the tone generator; and

16 a plurality of first electrical connection devices electrically attached to a
17 plurality of corresponding leads of the first plurality of leads at the second end, a
18 plurality of first electrical connection devices configured to engage a plurality of
19 electrical conductors of a communication line to provide an electrical connection
20 between the tone generator and a plurality of electrical conductors of the
21 communication line;

22 wherein a single output tone signal emitted by the tone generator is
23 simultaneously distributed to a plurality of electrical conductors of the
24 communication line.
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1 **12. (Original)** The system of claim 11, wherein the first end of the first
2 plurality of leads further comprises a first pigtail conductor electrically attached at
3 one end to the first end of the plurality of leads and at the other end to the signal
4 output terminal of the tone generator.

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6 **13. (Original)** The system of claim 12, wherein the first pigtail conductor
7 is configured to electrically attach to the signal output terminal of the tone
8 generator.

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10 **14. (Original)** The system of claim 13, wherein the first pigtail conductor
11 further comprises a second electrical connection device for releasably attaching
12 the second pigtail to the signal output terminal of the tone generator.

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14 **15. (Original)** The system of claim 11, wherein a plurality of first
15 electrical connection devices are spring loaded clips for releasably attaching a
16 plurality of leads of the first plurality of leads to a plurality of electrical conductors
17 of the communication line.

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19 **16. (Currently Amended)** ~~The system of claim 11, further comprising:~~
20 A system for testing a communication line including a plurality of electrical
21 conductors, the system comprising:
22 a tone generator having a signal output terminal and a common return
23 terminal; and
24 an interconnect structure electrically coupled to the tone generator, the
25 interconnect structure comprising:

1 a first plurality of leads comprising an electrically conductive portion
2 having a first end and a second end, wherein the first plurality of leads are
3 commonly electrically attached at the first end and wherein the first end is
4 configured to electrically attach to the signal output terminal of the tone generator;
5 and

6 a plurality of first electrical connection devices electrically attached to a
7 plurality of corresponding leads of the first plurality of leads at the second end, a
8 plurality of first electrical connection devices configured to engage a plurality of
9 electrical conductors of a communication line to provide an electrical connection
10 between the tone generator and a plurality of electrical conductors of the
11 communication line;

12 wherein a single output tone signal emitted by the tone generator is
13 simultaneously distributed to a plurality of electrical conductors of the
14 communication line;

15 a second plurality of leads comprising an electrically conductive portion
16 having a first end and a second end, wherein the second plurality of leads are
17 commonly electrically attached at the first end and wherein the first end is
18 configured to electrically attach to the common return terminal of the tone
19 generator; and

20 a plurality of third electrical connection devices electrically attached to a
21 plurality of corresponding leads of the second plurality of leads at the second end,
22 a plurality of third electrical connection devices configured to engage a plurality of
23 electrical conductors of a communication line to provide an electrical connection
24 between the tone generator and a plurality of electrical conductors of the
25 communication line.

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2 **17. (Previously Presented)** The system of claim 16, wherein the first end
3 of the second plurality of leads further comprises a second pigtail conductor
4 electrically attached to the first end of the second plurality of leads.
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6 **18. (Currently Amended)** The system of claim 16, wherein the second
7 pigtail conductor is configured to electrically attach to the common return terminal
8 of the tone generator.
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10 **19. (Currently Amended)** The system of claim 18, wherein the second
11 pigtail conductor further comprises a fourth electrical connection device for
12 releasably attaching the second pigtail to the common return terminal of the tone
13 generator.
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15 **20. (Original)** The system of claim 11, wherein a plurality of fourth
16 electrical connection devices are spring loaded clips for releasably attaching a
17 plurality of leads of the second plurality of leads to a plurality of electrical
18 conductors of the communication line.
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